

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Hyfloc C820

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Product for water treatments

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

DERYPOL, S.A HQ:	Manufacturing:
C/Plató, n 6, Entlo, 5	C/Cal Gabatx, s/n
08021 Barcelona (Spain)	08520 Les Franqueses del Vallès (Spain)
Tel. +34 93 238 9090	Tel. +34 93 8496188
	regulatory@derypol.com

1.4. Emergency telephone number

Emergency number : +34 93 849 6188
9:00-13:00 h 15:00-17:00 h (GMT + 1)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU > 2015: According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II)

Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word (CLP) : -
Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.

2.3. Other hazards

Other hazards which do not result in classification : Spill area may be slippery.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

3.2. Mixtures

Comments : Cationic polymer in aqueous solution

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aliphatic polyamine	CAS-No.: 42751-79-1	25 – 80	Aquatic Chronic 3, H412

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Do not perform any action that poses a risk if proper training is not held. Use the personal protective equipment necessary in the circumstances prevailing in the place of intervention.
First-aid measures after inhalation	: Go to the open air. In case of persistent trouble get medical attention and provide this Material Safety Data Sheet to your physician.
First-aid measures after skin contact	: Rinse the skin affected with plenty of water. Then wash it again with water and soap. In case of irritation, if it persists, get medical advice.
First-aid measures after eye contact	: Rinse thoroughly with plenty of water, also under eyelids, at least for 15 minutes. Get medical assistance. It is necessary having a safety shower in the work area.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth out with water. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: No acute effects are expected, except for an allergic reaction to any of the individual product ingredients.
Symptoms/effects after skin contact	: None expected.
Symptoms/effects after eye contact	: Causes irritation.
Symptoms/effects after ingestion	: No information available.
Symptoms/effects upon intravenous administration	: Likely routes of exposure: skin and eye.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Any ingredient in significant proportion according to the criteria laid down in Regulation 1272/2008 is mentioned in paragraph 3.2 of this Safety Data Sheet. Get medical attention urgently.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water, water spray, dry powder, carbon dioxide (CO ₂), foam.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Some hazardous gases can be released, mainly: carbon oxides (Cox) and nitrogen oxides (Nox). In case of combustion in a poor oxygen atmosphere some vapors of hydrochloric acid and hydrocyanic acid can be formed.
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5.3. Advice for firefighters

Precautionary measures fire	: Use self-contained breathing apparatus and chemically protective clothing.
Other information	: Spills produce extremely slippery surfaces.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid exposure to vapour. Avoid eyes, skin and clothes contact. Use personal protective equipment. Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment. Do not step on the spill and avoid contact with water. The affected area, in contact with water, will become extremely slippery.

Emergency procedures : Stop leak if safe to do so.

6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment. See Heading 8.

6.2. Environmental precautions

Avoid the ground to be contaminated, natural water courses and wastewater drainage. If contamination occurs inform the corresponding authorities immediately.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : For small spills use inert absorbent materials and remove with a shovel; then flush the affected area with pressured water. For large spills contain them with absorbent material and pump out the product to adequate containers; then flush the affected area with pressured water.

6.4. Reference to other sections

See Section 8 to have information related to most appropriate personal protection equipment.

See Section 13 to have information related to waste management.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : We recommend handling the product in a well ventilated area. Ensure you have a safety shower and eye wash fountain available. Keep absorbent material as a precaution against spills. Use normal personal hygiene and housekeeping measures when handling any chemical product.

Handling temperature : 0 – 30

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in cool, well-ventilated places. Keep containers tightly closed. Protect from exposure to sun. Keep the product away from incompatible materials and heat sources.

Storage conditions : Avoid extreme temperatures (below "Minimum temperature" and above "Maximum temperature"). Keep in a covered place, with the drum well closed and within the "Recommended temperature range". Protect from freezing.

Storage temperature : 0 – 30 °C

7.3. Specific end use(s)

For all the expected uses of the product the indications given above are considered appropriate.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Provide adequate ventilation, this can be achieved through good local extraction-ventilation and good general extraction system. If this were not enough, must be suitable respiratory equipment.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses with side-shields

8.2.2.2. Skin protection

Skin and body protection:

Use a chemical resistant apron or full protective equipment depending on the handling level and contact risks with the product and its dissolutions

Hand protection:

Use latex gloves, or natural rubber gloves. PVC gloves

8.2.2.3. Respiratory protection

Respiratory protection:

Not necessary under normal conditions and provided good general ventilation. In case of inadequate ventilation wear respiratory protection. If necessary use face mask with a filter for organic vapours

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid spills that contaminate the underground, surface water streams and sewer system.

Consumer exposure controls:

Wash your hands and anybody area that has resulted exposed to the product before drinking, eating, using the services and end of the work period. Take off contaminated clothing and wash before reuse.

Other information:

You should always have a safety shower and eyewash in the area where the product is handled. Be aware of your exposure to products used in your workplace and act responsibly to avoid contaminating other areas. Try to develop good health habits, check with your company responsible for help.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless to yellowish liquid.
Appearance	: Colourless to yellowish liquid.
Molecular mass	: Medium molecular weight.
Odour	: characteristic.
Odour threshold	: The product has a low odor threshold. In case of detect it take precautions as indicated in paragraph 8.2, find the cause and correct it.
Melting point	: < 0 °C
Freezing point	: Not available
Boiling point	: > 100 °C

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Flammability	: Not available
Explosive properties	: None expected.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not flammable.
Auto-ignition temperature	: Not available
Decomposition temperature	: > 150 °C
pH	: 4 – 6
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 3500 – 6000 cP
Solubility	: Dilutable in all proportions.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: < 0
Vapour pressure	: 2.3 kPa (20 °C)
Vapour pressure at 50 °C	: Not available
Density	: 1.1 – 1.2 g/cm ³
Relative density	: Not available
Relative vapour density at 20 °C	: 0.804
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

This product does not present any dangerous reactivity if used, stored and handled in accordance with this MSDS recommendations.

10.2. Chemical stability

Stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No risk of explosion or polymerization or inflammation on contact with air, even at high temperatures (<100 °C) and in the presence of ignition sources.

10.4. Conditions to avoid

None for safety reasons. For keeping the original properties of the product follow the recommendations given in Section 7.

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases. Bases and products that can release hazardous gases in acidic conditions (chlorites, hypochlorites) must be avoided. As a general rule we recommend avoiding the contact with strong chemical reagents, such as acids, bases, reductors and oxidizers.

10.6. Hazardous decomposition products

Thermal decomposition products (in case of fire) are indicated in Section 5.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: The product is not expected to be toxic by inhalation.

Hyfloc C820	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Aliphatic polyamine (42751-79-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	: Not irritant. pH: 4 – 6
Serious eye damage/irritation	: Slightly irritant. pH: 4 – 6
Respiratory or skin sensitisation	: This product is not expected to be sensitizing.
Germ cell mutagenicity	: No information available
Carcinogenicity	: No information available
Reproductive toxicity	: No information available
STOT-single exposure	: No information available
STOT-repeated exposure	: No information available
Aspiration hazard	: No aspiration hazard is expected in normal use.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: No data available
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11.2.2. Other information

Potential adverse human health effects and symptoms	: No symptoms expected if the product is properly handled, No effects whatsoever related to exposure to the product are known.
Other information	: No additional hazard is expected owing to the blend of the constituent ingredients of this product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.
Additional information	: At the habitual doses of this product no harm is expected for the microorganisms present in secondary treatments in waste water treatment plants.

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LC50 - Fish [1]	Data for a representative polymer.
EC50 - Crustacea [1]	10 – 100 mg/l (Daphnia magna, estimated)
EC50 72h - Algae [1]	Algal inhibition tests are not appropriate. The flocculating characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalides the test.

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12.2. Persistence and degradability

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Persistence and degradability	This product is not rapidly biodegradable. This product does not hydrolyse. In aqueous solution this product may be eliminated by flocculation and precipitation. It is easily removed from the aqueous media in presence of suspended matter.
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12.3. Bioaccumulative potential

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Bioconcentration factor (BCF REACH)	≈ 0
Partition coefficient n-octanol/water (Log Pow)	< 0
Bioaccumulative potential	The product is not expected to bioaccumulate.

12.4. Mobility in soil

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Ecology - soil	It may be easily removed by an abiotic process of adsorption.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : No data available

12.7. Other adverse effects

Other adverse effects : None to mention.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : If this product must be disposed as a waste the final user must do it accordingly with the European, national and local regulations. Use only authorised companies.

Additional information : Keep the same recommendations provided in Sections 7 and 8 of this MSDS. Furthermore, the user must consider the possible national/local regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

UN-No. (ADN) : Not applicable

UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

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14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

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Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
National Rules and Recommendations : Hazard class for water (Germany): WGK 2.
Proper and professional use of this substance for drinking water treatment, rehabilitation of surface waters or waste water treatment is not restricted by this classification.

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting : None of the components are listed
giftige stoffen – Borstvoeding
NIET-limitatieve lijst van voor de voortplanting : None of the components are listed
giftige stoffen – Vruchtbaarheid
NIET-limitatieve lijst van voor de voortplanting : None of the components are listed
giftige stoffen – Ontwikkeling

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Adverse health effects caused by endocrine disrupting properties	Added	
	SDS EU format	Added	
	Adverse effects on the environment caused by endocrine disrupting properties	Added	
	Issue date	Modified	
	Supersedes	Modified	
	Revision date	Modified	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Hazard statements (CLP)	Modified	
7.1	Handling temperature	Added	
9.1	Appearance	Added	
16	Other information	Added	

Other information : The latest version of the MSDS of this product can be obtained through the link <https://www.derypol.com/en/technical-documentation/>.

Full text of H- and EUH-statements

Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
H412	Harmful to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Aquatic Chronic 3	H412	Calculation method
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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Safety Data Sheet applicable for regions : DE;DK;ES;FI;FR;IT;NL;PL;PT;GB;RU;SE

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.